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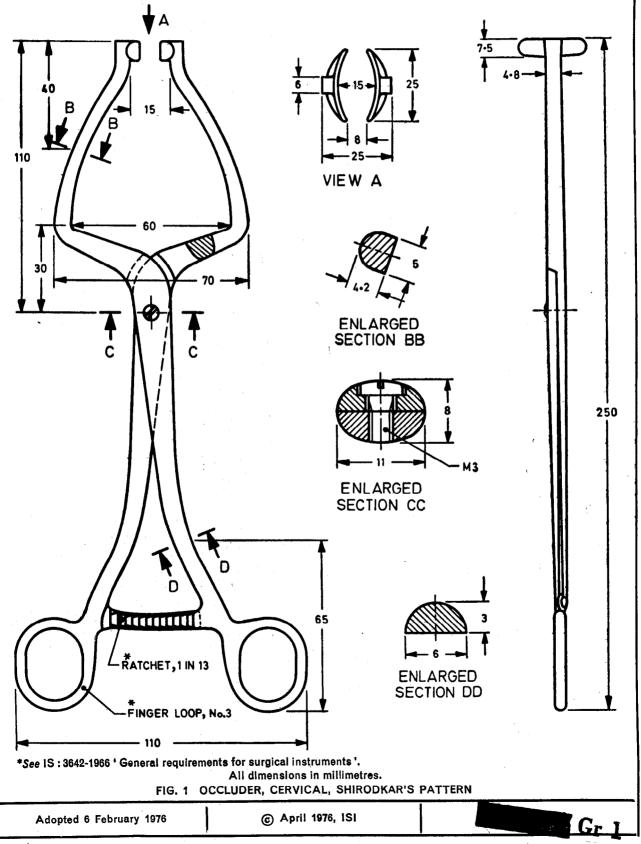
Indian Standard

"Reaffirmed 1983"

# SPECIFICATION FOR INSTRUMENTS, TUBOPLASTY

PART I OCCLUDER CERVICAL, SHIRODKAR'S PATTERN

- 1. Scope Specifies dimensional and other requirements for Shirodkar's pattern cervical occluder used for tuboplasty in obstetrics.
- 2. Shape and Dimensions As shown in Fig. 1.



# IS: 7981 (Part I) - 1976

- 2.1 A deviation of  $\pm$  2.5 percent shall be allowed on all dimensions.
- 2.2 Joint Screw recessed type as given in 6 of IS: 3642-1966.
- **2.3** Finger Loop No. 3 size conforming to **12** of IS: 3642-1966.
- 2.4 Ratchet Teeth to conform to 8.1 of IS: 3642-1966 with combination of 1 in 13.

#### 3. Material

- 3.1 Stainless steel of Designation 20Cr13 or 30Cr13 of IS: 6603-1972 'Specification for stainless steel bars and flats'.
- 3.2 Screw shall be of stainless steel of the same designation as used for the occluder.

## 4. Workmanship and Finish

- 4.1 The occluder shall be free from scales, burrs, pits and other defects.
- 4.2 The occluder shall be symmetrical and well balanced.
- 4.3 All edges shall be smoothly rounded off.
- 4.4 The arms of the occluder shall move freely and easily at the joint but there shall be no side play.
- 4.5 The occluder shall be polished bright and passivated.
- 4.6 The working end of the occluder shall meet on the engagement of the fourth ratchet teeth.
- 5. Heat Treatment The occluder shall be hardened and tempered to give a hardness of 380 to  $450\ HV$ .

#### 6. Tests

## **6.1** Flexibility

- **6.1.1** A force of moderate degree shall be applied by thumb and fingers to each shank at right angle to the long axis of the shank and in the plane of the finger loops. This shall be repeated at several points along the shanks. The test shall then be repeated in a plane at right angles to the first. On completion of the test, the shanks shall not have acquired a new permanent set.
- **6.1.2** The working end of the jaw shall be made to bite a piece of vulcanized rubber sheet 5 mm thick and the occluder closed with a moderate degree of force. On completion of the test the occluder shall show no sign of damage.
- 6.2 Corrosion Resistance Test the occluder in accordance with IS: 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. It shall show no sign of corrosion after the test.

#### 7. Marking — Mark with the following:

- a) Manufacturer's name, initials or recognized trade-mark; and
- b) The words 'Stainless steel'.
- 7.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 8. Packing The occluder shall be wrapped in moisture-proof paper or packed in polyethylene bags. The occluder shall then be individually packed in cartons.